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CLAIMS

using a first liquid to etch a first layer located underneath a second layer;
exposing the second layer to a second liquid after using the first liquid, the
second liquid being inorganic and miscible in carbon dioxide; and

- supercritical drying the micromachined component with carbon dioxide after exposing the second layer to the second liquid.
 - 2. The method of claim 1 further comprising: forming the first layer comprised of silicon dioxide, and providing the first liquid comprised of hydrofluoric acid.
- 3. The method of claim 1 further comprising:
 forming the first layer comprised of germanium, and
 providing the first liquid comprised of hydrogen peroxide.
 - 4. The method of claim 1 further comprising: forming the first layer comprised of a polymer, and providing the first liquid comprised of an organic solvent.



- 5. The method of claim 1 further comprising:
- providing the second liquid comprised of carboxylic acid.
- 6. The method of claim 1 further comprising: providing the second liquid comprised of acetic acid.
- 7. The method of claim 1 further comprising:providing the second liquid consisting of glacial acetic acid.
 - 8. The method of claim 1 further comprising: exposing the second layer to a third liquid after using the first liquid and before exposing the second layer to the second liquid.
- 9. The method of claim 8 further comprising:providing the first liquid miscible in the third liquid.
 - 10. The method of claim 8 further comprising: exposing the second layer to a fourth liquid after exposing the second layer to the third liquid and before exposing the second layer to the second liquid.

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- 11. The method of claim 10 further comprising:

 providing the first liquid miscible in the third liquid; and
 providing the third liquid miscible in the fourth liquid.
- 12. The method of claim 10 further comprising:

 exposing the second layer to a fifth liquid after exposing the second layer to the fourth liquid and before exposing the second layer to the second liquid.
 - 13. The method of claim 12 further comprising:

 providing the first liquid miscible in the third liquid;

 providing the third liquid miscible in the fourth liquid;

 providing the fourth liquid miscible in the fifth liquid; and

 providing the fifth liquid miscible in the second liquid.
 - 14. The method of claim 12 further comprising: providing a single liquid for the third and fifth liquids.
 - 15. A micromachined component manufactured by the method of claim 1.

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16. A method of manufacturing a micromachined component comprising: providing a substrate;

forming a first structural layer over the substrate;

forming a sacrificial layer over the first structural layer;

forming a second structural layer over the sacrificial layer;

patterning the second structural layer;

etching the sacrificial layer with a first liquid;

displacing the first liquid with a second liquid, the first liquid being miscible in the second liquid;

exposing the second structural layer to a third liquid after displacing the first liquid, the third liquid being inorganic and miscible in carbon dioxide; and

supercritical drying the first and second structural layers with carbon dioxide after exposing the second structural layer to the third liquid wherein the carbon dioxide displaces the third liquid.

17. The method of claim 16 further comprising:

providing the first liquid comprised of hydrofluoric acid;

providing the second liquid comprised of deionized water; and

providing the third liquid comprised of carboxylic acid.

18. The method of claim 16 further comprising:

20 displacing the second liquid with a fourth liquid.





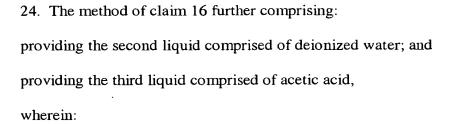
- 19. The method of claim 18 further comprising: providing the second liquid miscible in the fourth liquid.
- 20. The method of claim 18 further comprising: displacing the fourth liquid with a fifth liquid,
- 5 wherein:

exposing the second structural layer to the third liquid further comprises:

displacing the fifth liquid with the third liquid.

- 21. The method of claim 20 further comprising: 10 providing the second liquid miscible in the fourth liquid; providing the fourth liquid miscible in the fifth liquid; and providing the fifth liquid miscible in the third liquid.
 - 22. The method of claim 21 further comprising: providing a single liquid for the second and fifth liquids.
- 15 23. The method of claim 21 further comprising: providing the second liquid comprised of deionized water; providing the fourth liquid comprised of hydrogen peroxide;

providing the fifth liquid comprised of deionized water; and providing the third liquid comprised of acetic acid.



5 exposing the second structural layer to the third liquid further comprises:

displacing the second liquid with the third liquid.

25. A micromachined component manufactured by the method of claim 16.